REMARKS

Claims 1-16 were previously pending in this application. By this amendment, Applicant cancels no claims. Claim 1 has been amended. New claim 22 has been added. As a result claims 1-16 and 22 are pending for examination with claim 1 being an independent claim. No new matter has been added. The application as presented is believed to be in condition for allowance.

Summary of Telephone Conference with Examiner

Applicant thanks Examiner Nooristany for his time and courtesy during the telephone interview conducted on August 2, 2011 with the Applicant's representative Thomas McGinnis. During the interview, the patentability of the claims in light of the cited references was discussed. In particular, Applicant's representative provided an overview of several embodiments and asserted that U.S. Publication No. 2003/0037162 by Kotser (hereinafter "Kotser"), U.S. Publication No. 2001/0021177 by Ishii (hereinafter "Ishii") and U.S. Patent No. 6,801,506 to Dey (hereinafter "Dey") do not disclose "storing, by the first network forwarding device and the second network forwarding device, the root bridge identifier *without exchanging* the root bridge identifier in a spanning tree protocol message" as required by claim 1, as amended. The Examiner disagreed with this assertion and indicated that Dey discloses the claimed limitation. No agreement was reached regarding the patentability of the claims.

Objection to the Specification

The disclosure stands objected to as purportedly failing to support the limitation "using … the root bridge identifier, before, during and after." Without acceding to the correctness of this rejection, Applicant amends claim 1 herein, and amended claim 1 is fully supported by the Application as originally filed. Accordingly, withdrawal of the objection to the disclosure is respectfully requested.

Rejection under 35 U.S.C. §112

Claims 1-16 stand rejected under 35 U.S.C. §112, first paragraph, as purportedly failing to comply with the written description requirement. Without acceding to the correctness of this rejection, Applicant amends claim 1 herein, and amended claim 1 meets the requirements of 35 U.S.C. §112, first paragraph. Likewise, dependent claims 2-16 meet the requirements of 35 U.S.C. §112, first paragraph. Accordingly, withdrawal of the rejection of claims 1-16 under 35 U.S.C. §112, first paragraph, is respectfully requested.

Claims 1-16 stand rejected under 35 U.S.C. §112, second paragraph, as purportedly being indefinite. Without acceding to the correctness of this rejection, Applicant amends claim 1 herein, and amended claim 1 meets the requirements of 35 U.S.C. §112, second paragraph. Likewise, dependent claims 2-16 meet the requirements of 35 U.S.C. §112, second paragraph. Accordingly, withdrawal of the rejection of claims 1-16 under 35 U.S.C. §112, first paragraph, is respectfully requested.

Rejections Under 35 U.S.C. §103

Claims 1-16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kotser in view of Ishii in further view of Dey. In response, Applicant traverses this rejection and respectfully requests reconsideration in light of the following remarks.

Claim 1, as amended, is directed toward a method for determining a spanning tree. The method includes "storing, by the first network forwarding device and the second network forwarding device, the root bridge identifier without exchanging the root bridge identifier in a spanning tree protocol message." As explained below, the proposed combination of Kotser, Ishii and Dey fails to teach or suggest this claim limitation.

Kotser is directed toward a "method for controlling a system of label-switched tunnels through a communication network" (Kotser, Abstract). Kotser discloses that the "IEEE 802.1D standard proposes an alternative to fully-meshed networks by specifying an implementation of a spanning tree algorithm to trim network paths that cause loops, along with a communication protocol, known as spanning tree protocol (STP), for managing the creation and updating of the network topology" (Kotser, Paragraph [0007]). Kotser also discloses that the "root bridge periodically transmits configuration BPDUs, which refresh the configuration information of all bridges in the network" (Kotser, Paragraph [0016]) and that each "configuration BPDU contains,

among other parameters, the unique identifier of the bridge that the transmitting bridge believes to be the root" (Kotser, Paragraph [0010]).

Ishii is directed toward a method and system for "speeding up restoration from a communication interrupt" (Ishii, Paragraph [0089]). With reference to FIGS. 5A-6E, Ishii discloses use of BPDUs to configure a spanning tree and to change the topology of the spanning tree in the event of link failures. As shown in these FIGS., a single root bridge, "Bridge A," notifies other bridges of its "root ID" using BPDU packets.

Dey is directed toward a "method and apparatus for rapidly re-starting a spanning tree process at an intermediate device" (Dey, Abstract). Dey discloses that "a spanning tree entity running one or more instances of a spanning tree protocol stores a record of spanning tree parameter information and port states in a non-volatile memory" (Dey, Col. 5, lines 29-33). Dey also discloses that to "verify the spanning tree parameter information stored at the non-volatile memory following a re-start, the spanning tree entity transmits test bridge protocol data unit (BPDU) messages from each port in order to trigger the receipt of reply BPDU messages from its neighboring devices" (Dey, Col. 5, lines 63 through col. 6, line 1).

As an initial matter, the proposed combination of Kotser, Ishii and Dey is improper because the proposed combination is inoperable. With reference to FIG. 5B, Ishii disclosures a version of STP in which a bridge responds to a disconnection from the root bridge by transmitting a "BPDU having root ID changed to the MAc *[sic]* address of the bridge D itself from the representative port D to **blocked port** B of bridge C" (Ishii, Paragraph [0216], emphasis supplied). Ishii further discloses that "when bridge C receives a BPDU from bridge D, from its **blocked port** B, it compares BPDU information from the received bridge D with that of bridge C itself" (Ishii, Paragraph [0217], emphasis supplied). Thus Ishii discloses processing of BPDU packets received via a blocked port. Ishii further discloses that all "data frames received at a blocked port are discarded" (Ishii, Paragraph [0017]). As understood by those skilled in the art, the receipt and processing of BPDU packets via a blocked port that discards data frames is accomplished by exchanging data frames on a data plane and STP (control) frames on a separate control plane.

In direct contrast, Kotser discloses a system in which "STP is carried out in the data plane, **rather than in a separate control plane**" (Kotser, Paragraph [0030], emphasis supplied). This teaching is incompatible with Ishii because according to Ishii all "**data** frames received at a

blocked port are discarded" (Ishii, Paragraph [0017], emphasis supplied). If this teaching of Ishii is met, then the teaching of Kotser that STP be implemented in the data plane would cause all BPDU messages transmitted within data frames (such as an MPLS frames) to a blocked port to be discarded. This would prevent the further processing of the BPDU messages as required by Ishii, rendering a proposed combination of Kotser and Ishii unable to reconfigure a spanning tree. Therefore, the proposed combination of Kotser, Ishii and Dey is improper due to its incorporation of the inoperable combination of Kotser and Ishii.

However, even if one were to combine the references as proposed, the proposed combination fails to teach or suggest "storing, by the first network forwarding device and the second network forwarding device, the root bridge identifier *without exchanging the root bridge identifier* in a spanning tree protocol message." Rather, as discussed above, Kotser, Ishii and Dey all employ **a conventional approach to disseminating root bridge identifiers,** i.e. BPDU messages that include the root bridge identifier. For example, Kotser discloses that the spanning tree protocol "uses configuration BPDUs to determine the network topology" (Kotser, Paragraph [0009]). Similarly, Ishii discloses that, during configuration of a spanning tree, each "bridge transmits the initial value of a BPDU to all ports, and at the same time, receives the BPDU transmitted from another bridge from all the ports" (Ishii, Paragraph [0025]). Likewise, Dey discloses that "following a re-start, the spanning tree entity transmits test bridge protocol data unit (BPDU) messages" (Dey, Col. 5, lines 63-66). Thus all three references disclose that bridges learn configuration information through the use of conventional spanning tree protocol packets, namely BPDUs that include the root bridge identifier.

This approach to learning configuration information stands in contrast to "storing, by the first network forwarding device and the second network forwarding device, the root bridge identifier *without exchanging the root bridge identifier* in a spanning tree protocol message" as required by amended claim 1. Consequently, the proposed combination of Kotser, Ishii and Dey fails to render amended claim 1 obvious. Accordingly, withdrawal of the rejection of claim 1 under 35 U.S.C. § 103(a) is respectfully requested.

Dependent claims 2-16 depend from independent claim 1. Therefore, dependent claims 2-16 are allowable for at least the same reasons as independent claim 1. Accordingly, withdrawal of the rejection of claims 2-16 under 35 U.S.C. § 103(a) is respectfully requested.

New Claim

Applicant has added new claim 22 to further define Applicant's claimed contribution to the art. Support for the new claim is provided by the Application as filed. More particularly, support for the subject matter of claim 22 is provided, for example, in paragraphs [0054]-[0057] in the published application.

Claim 22 depends from independent claim 1 and is, therefore, allowable for at least the same reasons as independent claim 1, as amended.

CONCLUSION

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an accompanying payment, please charge any deficiency to Deposit Account No. 50/2762, Ref. E2003-701010.

Respectfully submitted,

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